

AMENDMENTS TO THE CLAIMS

1. (currently amended) An intermediate lens structure, comprising a block of lens material for forming a micro-lens having a first focal length upon a reflow, formed on a support surface, wherein cut-out portions are removed from a central part of the block of lens material, the central part of the block of lens material having a configuration for forming a micro-lens from the block of lens material having a second focal length upon a reflow.

2. (original) The intermediate lens structure of claim 1, wherein the block of lens material comprises a spun-on polymer.

3. (original) The intermediate lens structure of claim 2, wherein the spun-on polymer comprises a transparent photosensitive polymer.

4. (currently amended) A lithographic mask for forming a micro-lens from an intermediate lens structure, comprising:

a mask area; ~~and~~

at least one exposure opening within the mask area adapted to form at least one cut-out portion in the intermediate lens structure; and

at least one pull-back mask portion adapted to link a pair of intermediate lens structures together to retard pull-back of the resulting micro-lenses.

5. (original) The lithographic mask of claim 4, wherein the at least one exposure opening is non-symmetrical.

6. (original) The lithographic mask of claim 4, wherein the at least one exposure opening is symmetrical.

7. (currently amended) A lithographic mask array for forming an array of micro-lenses from a plurality of intermediate lens structures, comprising an array of masks,

each mask comprising:

a mask area; ~~and~~

at least one exposure opening within the mask area adapted to form at least one cut-out portion in a respective one of the intermediate lens structures; and

at least one pull-back mask portion adapted to link a pair of intermediate lens structures together to retard pull-back of the resulting micro-lenses.

8. (original) The lithographic mask array of claim 7, wherein the mask areas comprise an opaque material.

9. (original) A lithographic mask array for forming an array of micro-lenses from a plurality of intermediate lens structures, comprising:

a plurality of mask areas formed of an opaque material; and

at least one pull-back mask portion adapted to link a pair of intermediate lens structures together to retard pull-back of the resulting micro-lenses.

10.(original) The lithographic mask array of claim 9, wherein at least one of the mask areas includes at least one exposure opening for forming at least one cut-out portion in a respective one of the intermediate lens structures.

11.(original) The lithographic mask array of claim 10, wherein said at least one exposure opening is symmetrical.

12.(original) The lithographic mask array of claim 10, wherein said at least one exposure opening is non-symmetrical.

13 – 33. (canceled)

34.(currently amended) A convex semiconductor micro-lens formed from an intermediate structure operable to form a micro-lens having a first focal length upon a reflow, the convex micro-lens ~~and~~ having a second radius defined during fabrication by reducing mass from a centralized portion of the intermediate structure.